

SUPPORT FOR THE AMENDMENTS

Claims 1-6 are amended to use wording and structure consistent with U.S. patent law practice and to state proper antecedent basis.

Support for the amendment to Claim 7 is found beginning on page 3, line 39 and bridging to page 4, line 3 in the specification.

Claims 8-10 are amended to use wording and structure consistent with U.S. patent law practice.

Claim 11 is new and is supported beginning on page 3, line 39 and bridging to page 4, line 3 in the specification.

No new matter will be added to this application by entry of this amendment.

Upon entry of this amendment, Claims 1-11 are active.

REQUEST FOR RECONSIDERATION

The claimed invention is directed to luster pigments having pronounced sparkle. There is a growing demand for effect coatings comprising luster pigments which simultaneously exhibit high chroma, brightness of color and pronounced sparkle while also providing high hiding power, good processibility of coatings and a high distinctness of reflected image.

The claimed invention addresses this problem by providing luster pigments having pronounced sparkle consisting essentially of aluminum platelets coated with iron oxide, wherein an average platelet size of the aluminum platelets in a precoated state is from 8 to 30 μm , an average platelet thickness of the aluminum platelets in the precoated state is from 300 to 600 nm and an aspect ratio of the aluminum platelets in the precoated state is from 15 to 70. No such luster pigment is disclosed or suggested in the cited references.

Applicants respectfully note that Claim 1 is herein amended to state the transitional language “consisting essentially of.”

The rejection of Claims 1-3, 7-8 and 10 under 35 U.S.C. over Takahashi (U.S. 2003/0051634) in view of Nagano (U.S. 2006/0058419).

Neither reference discloses or suggests the luster pigment as presently described in Claim 1 and the combined descriptions of the cited references also fail to disclose or suggest the presently claimed invention.

Takahashi is directed to a high-chromatic flaky pigment which comprises a flaky substrate coated over its entire surface with a metal oxide providing an interference color and further coated with a semi-transparent thin film to enhance the interference color of the pigment (Claim 1). The reference states in the second sentence of paragraph [0006]:

“Particularly, it was found that coating a **metal oxide-coated flaky pigment** further with a semi-transparent thin **metal film**, provides a pigment with a strong interference color and flop effect.”

Clearly, Takahashi requires a pigment composition of **three** components: i.e., 1) a flaky pigment, 2) metal oxide coating on the flaky pigment and 3) a metal film coating the metal oxide.

In contrast, the luster pigments of the claimed invention consist essentially of aluminum platelets coated with iron oxide: i.e., **two** components.

Applicants have described that the aspect ratio of the aluminum platelet is in the range from 15 to 70. The aspect ratio is defined as the ratio of platelet size to its thickness (Page 2, line 12). Takahashi is silent relative to any description of aspect ratio and therefore fails to recognize the significance of this physical property.

The Office has recognized the deficiency of Takahashi and has cited Nagano to show description of an aspect ratio. In the citation of paragraph [0012], reference to prior art as actually described in JP 11-152423 is made. JP 11-152423 is directed to an aluminum flake

pigment having high luminance. However, Applicants respectfully submit that such pigment is not coated with metal oxide and therefore cannot have the sparkle of the claimed invention. Moreover as Nagano and JP 11-152423 are both directed to aluminum flake pigments having small average particle diameter, which are not interference pigments, and do not disclose or suggest metal oxide coatings, these references are directed to a field of technology unrelated to the technology of the claimed invention.

Applicants respectfully call the Examiner's attention to the following excerpt from the Office's own discussion of "**Examination Guidelines for Determining Obviousness Under 35 U.S.C. 103 in View of the Supreme Court Decision in *KSR International Co. v. Teleflex Inc.***"

"The rationale to support a conclusion that the claim would have been obvious is that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention.⁴³ "[I]t can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does."⁴⁴ **If any of these findings cannot be made, then this rationale cannot be used to support a conclusion that the claim would have been obvious to one of ordinary skill in the art,"** (Federal Register, Vol. 72, No. 195, page 57529) (Bold and underlining added)

Applicants respectfully submit that the Office has not met the requirements set forth above to support a conclusion of obviousness. Nowhere in any of the cited references is the claimed element "consisting essentially of aluminum platelets coated with iron oxide" disclosed or suggested. Nagano does not cure the deficiency of Takahashi described above. Moreover there is no suggestion or motivation provided that would lead one of ordinary skill in the art to combine the aluminum flake pigment particle size of JP 11-152423 (cited in Nagano) with the three component pigment of Takahashi, especially when Nagano teaches that the JP 11-152423 aluminum flake pigment does not sufficiently satisfy the requirement

for an aluminum flake pigment having a small particle size[0013]. Furthermore, there is no disclosure or suggestion in any of the cited references that would lead one of ordinary skill in the art to predict the sparkle character of the claimed invention.

In view of the foregoing, Applicants respectfully submit that the combination of Takahashi and Nagano does not anticipate nor render obvious the claimed invention. Withdrawal of the rejection of Claims 1-3, 7-8 and 10 under 35 U.S.C. over Takahashi in view of Nagano is respectfully requested.

The rejection of Claims 4-6 under 35 U.S.C. 103(a) over Takahashi in view of Nagano and further in view of Schmidt et al. (U.S. 6,596,070) is respectfully traversed. The deficiency of Takahashi in view of Nagano is described above. Schmidt does not cure this deficiency and therefore the combined references neither disclose or suggest the claimed invention as described in Claims 1-11.

Schmidt is directed to:

“interference pigments on the basis of **multiply coated**, platelet-shaped substrates which comprise at least one layer sequence comprising: (A) a coating having a refractive index $n \geq 2.0$, (B) a colourless coating having a refractive index $n \leq 1.8$, and (C) a nonabsorbing coating of high refractive index, and, if desired, (D) an external protective layer.” (Col. 2, lines 43-51)(Bold added)

Clearly Schmidt does not cure the deficiency of the primary references with respect to disclosing or suggesting the claimed element: “consisting essentially of aluminum platelets coated with iron oxide.”

The Office has cited Schmidt to show appropriate metal oxide thicknesses as disclosed in Claims 4-6. Applicants have described on page 3, lines 22-26, in the specification that the layers of 18 to 25 nm, 30 to 40 nm and 110 to 140 nm, in the claimed invention exhibit particularly bright hues of gold, orange and red, respectively. Schmidt

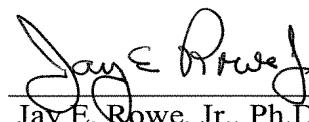
neither discloses or suggests such significantly improved results due to such specific ranges of iron oxide coating layer on aluminum platelets.

In view of the foregoing, Applicants respectfully submit that Schmidt does not anticipate or suggest the improved brightness and specific color hue due to the specific iron oxide coating on aluminum platelet thicknesses described in Claims 4, 5 and 6. Moreover, Schmidt does not cure the basic deficiency of the primary reference combination. Therefore, Applicants respectfully submit that the combined references do not anticipate or render obvious Claims 4, 5 and 6 of the claimed invention and withdrawal of the rejection of Claims 4-6 under 35 U.S.C. 103(a) over Takahashi in view of Nagano and further in view of Schmidt et al. is respectfully requested.

Applicants respectfully submit that the above-identified application is now in condition for allowance and early notice of such action is earnestly solicited.

Respectfully submitted,

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